Mr. Jan Morse
Raybestos Products Company
1204 Darlington Avenue
Crawfordsville, IN 47933

Re: 107-12810-00007
First Significant Permit Modification to
Part 70 No.: T107-6836-00007

Dear Mr. Morse:

Raybestos Products Company was issued a Title V permit on April 14, 1999 for operation of a stationary automotive parts manufacturing operation. A letter requesting changes to this permit was received on October 9, 2000. Pursuant to the provisions of 326 IAC 2-7-12(d)(1) a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of an induction bonder to the existing bonding/flattening process (identified as P009) as described below:

(a) One (1) electric induction bonding machine, identified as 13088, exhausting to one (1) stack (13318).

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call Nishat Hydari at (973) 575-2555, ext. 3216, or call (800) 451-6027, press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
NH/EVP
cc: File - Montgomery County
U.S. EPA, Region V
Montgomery County Health Department
Air Compliance Section Inspector - Eric Courtright
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michelle Boner

PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Raybestos Products Company
1204 Darlington Avenue
Crawfordsville, Indiana 47933

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T107-6836-00007	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: April 14, 1999

First Administrative Amendment 107-11435-00007	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: December 7, 1999

First Significant Permit Modification 107-12810-00007	Pages Affected: 8, 8a, 34, 35, 36, 36a

Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

(6) One (1) general cleaning with solvents operation, installed in 1952, identified as P008, exhausting through roof vents, exits, and entrances.

(7) One (1) bonding/flattening process, installed in 1984, identified as P009, with a maximum capacity of 8,560 pounds bounded/flattened products per hour, consisting of the following equipment:

(A) One (1) electric induction bonding machine, identified as 13088, exhausting to one (1) stack (13318);

(B) Two (2) bonders, exhausting to one (1) stack (13072);

(C) Two (2) bonders, exhausting to one (1) stack (13073);

(D) One (1) bonder, exhausting to one (1) stack (13075);

(E) One (1) bonder, exhausting to one (1) stack (13076); and

(F) One (1) induction bonder, identified as P015, using one (1) baghouse as control, exhausting to one (1) stack (13203).

(8) One (1) powder mixing operation, installed in 1952, identified as P010, with a maximum capacity of 1,000 pounds mixed powder per hour, using baghouse(s) as control, consisting of the following equipment:

(A) Thirteen (13) wafer presses;

(B) Other miscellaneous equipment;

(C) Two (2) pulverizers;

(D) One (1) oven;

(E) Four (4) wafer presses;

(F) Other miscellaneous equipment;

(G) Multiple drum opening vents;

(H) One (1) iron shaker;

(I) One (1) iron blender;

(J) One (1) copper blender;

(K) One (1) dry blender;

(L) One (1) copper shaker;

(M) One (1) pulverizer; and

(N) Other miscellaneous equipment.

(9) One (1) graphite spray operation, installed in 1952, identified as P011, with a maximum capacity of 164 sintered metal and graphitics pieces per hour, consisting of the following equipment:

(A) Four (4) wafer press/graphite spary booths, exhausting to one (1) stack (14100);

(B) Three (3) wafer press/graphite spray booths, exhausting to one (1) stack (14101);

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(1) One (1) steel blanking and surface finishing operation, installed in 1980, identified as P001, with a maximum capacity of 7,714 pounds steel rings per hour and 9,641 pounds steel scrap per hour, using one (1) cyclone as control, exhausting to one (1) stack (10263), consisting of the following equipment:
  (A) Two (2) belt sanders.

(3) Two (2) sodium nitrite salt baths, one installed in 1967 and the other to be installed in 1998, identified as P003a and P003b, with a maximum capacity of 527 (P003a) and 3500 (P003b) pounds heat treated steel rings per hour, exhausting to one (1) stack (10200).

(4) One (1) metal grinding and grooving operation, installed in 1952, identified as P004, with a maximum capacity of 5,010 pounds ground and grooved wafers per hour, using baghouse(s) as control, consisting of the following equipment:
  (A) One (1) edge grinder;
  (B) Sixteen (16) groovers;
  (C) Three (3) grit blasters;
  (D) Ten (10) grinders;
  (E) Four (4) sanders;
  (F) One (1) packermatic;
  (G) Two (2) deburr machines;
  (H) One (1) wire brush;
  (I) One (1) brush unit;
  (J) One (1) demag unit;
  (K) One (1) milling machine;
  (L) Other miscellaneous equipment;
  (M) Three (3) grinders;
  (N) One (1) timesaver;
  (O) Three (3) sanders;
  (P) Four (4) lathes;
  (Q) Five (5) groovers;
  (R) One (1) covel;
  (S) Three (3) drill presses;
  (T) Two (2) slotting machines;
  (U) One (1) grit blaster;
  (V) One (1) blanchard;
  (W) One (1) boring mill;
  (X) One (1) wafer grinder; and
  (Y) Other miscellaneous equipment.

(5) One (1) metal etch lines operation, identified as P007, with a maximum capacity of 3,723 pounds etched steel per hour, using two (2) acid gas scrubbers as control, consisting of the following equipment:
  (A) One (1) etcher, installed in 1986, with an acid gas scrubber as control, exhausting to one (1) stack (13304);
  (B) One (1) etcher, installed in 1986, with an acid gas scrubber as control, exhausting to one (1) stack (13305); and
  (C) One (1) lime slaking collection, installed in 1983, identified as P015, with one (1) baghouse as control, exhausting to one (1) stack (13203).

(7) One (1) bonding/flattening process, installed in 1984, identified as P009, with a maximum capacity of 8,560 pounds bonded/flattened products per hour, consisting of the following equipment:
- (A) One (1) electric induction bonding machine, identified as 13088, exhausting to one (1) stack (13318);
- (B) Two (2) bonders, exhausting to one (1) stack (13072);
- (C) Two (2) bonders, exhausting to one (1) stack (13073);
- (D) One (1) bonder, exhausting to one (1) stack (13075);
- (E) One (1) bonder, exhausting to one (1) stack (13076); and
- (F) One (1) induction bonder, identified as P015, using one (1) baghouse as control, exhausting to one (1) stack (13203).

(8) One (1) powder mixing operation, installed in 1952, identified as P010, with a maximum capacity of 1,000 pounds mixed powder per hour, using baghouse(s) as control, consisting of the following equipment:
- (A) Thirteen (13) wafer presses;
- (B) Other miscellaneous equipment;
- (C) Two (2) pulverizers;
- (D) One (1) oven;
- (E) Four (4) wafer presses;
- (F) Other miscellaneous equipment;
- (G) Multiple drum opening vents;
- (H) One (1) iron shaker;
- (I) One (1) iron blender;
- (J) One (1) copper blender;
- (K) One (1) dry blender;
- (L) One (1) copper shaker;
- (M) One (1) pulverizer; and
- (N) Other miscellaneous equipment.

(9) One (1) graphite spray operation, installed in 1952, identified as P011, with a maximum capacity of 164 sintered metal and graphitics pieces per hour, consisting of the following equipment:
- (A) Four (4) wafer press/graphite spary booths, exhausting to one (1) stack (14100);
- (B) Three (3) wafer press/graphite spray booths, exhausting to one (1) stack (14101);
- (C) Two (2) wafer press/graphite spray booths, exhausting to one (1) stack (14112);
- (D) One (1) graphite spray booth, exhausting to one (1) stack (14113); and
- (E) Two (2) wafer press/graphite spray booths, exhausting to one (1) stack (14116).

(12) One (1) paper grinding and grooving operation, installed in 1989, identified as P015, with a maximum capacity of 4,278 ground and grooved wafers per hour, using baghouse(s) as control, consisting of the following equipment:
- (A) Four (4) wafer grinders;
- (B) Three (3) grinders;
- (C) One (1) groover;
- (D) One (1) brush unit;
- (E) One (1) auto control;
- (F) One (1) conveyor;
- (G) Other miscellaneous equipment;
- (H) One (1) boring machine;
- (I) Seven(7) wafer grinders;
- (J) Five (5) bore and turn;
- (K) One (1) grinder;

(M) Multiple inspection tables;
(N) One (1) parts sorter;
(O) Two (2) grinders;
(P) Three (3) brush units;
(Q) Three (3) packermatics;
(R) Three (3) press in groovers (PIG);
(S) Two (2) chamfer machines;
(T) Six (6) grinders;
(U) Six (6) groovers;
(V) One (1) oil coater;
(W) One (1) transfer line;
(X) One (1) sander;
(Y) One (1) auto control;
(Z) Other miscellaneous equipment; and
(AA) One (1) groover, identified as P018, using a baghouse as control, exhausting to one (1) stack (14015);

(14) One (1) paper blanking operation, installed in 1989, identified as P018, with a maximum capacity of 420 pounds of stamped paper per hour and 1,052 pounds of paper scrap per hour, using baghouse(s) as control, consisting of the following equipment:
(A) One (1) blank press;
(B) Other miscellaneous equipment;
(C) Eight (8) blank presses;
(D) Two (2) feeders;
(E) Scales;
(F) One (1) air press;
(G) One (1) baler; and
(H) Other miscellaneous equipment.

(15) One (1) rubber making operation, installed in 1979, identified as P019, with a maximum capacity of 200 pounds of rubber friction material per hour, using baghouse(s) as control, consisting of the following equipment:
(A) One (1) banbury mixer.

(Insignificant Activity) Paper making operation including two pulp mixers, associated caustic, alum and wastewater tanks, and one steam heated paper rolling and drying process.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2:

(a) The PM from the steel blanking and surface finishing operation shall not exceed the 17.32 pounds per hour;

(b) The PM from the sodium nitrite salt bath shall not exceed 1.67 (P003a) and 5.96 (P003b) pounds per hour;

(c) The PM from the metal grinding and grooving operation shall not exceed 7.58 pounds per hour;

(d) The PM from the metal etch lines operation shall not exceed 6.21 pounds per hour;

(e) The PM from the bonding/flattening process shall not exceed 11.70 pounds per hour;

(f) The PM from the powder mixing operation shall not exceed 2.57 pounds per hour;

(g) The PM from the graphite spray shall not exceed 0.07 pounds per hour;

(h) The PM from the paper grinding and grooving operation shall not exceed 6.82 pounds per hour;

(i) The PM from the paper blanking operation shall not exceed 3.33 pounds per hour; and

(m) The PM from the rubber making operation shall not exceed 0.87 pounds per hour.

These limits are established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Significant Permit Modification to a Part 70 Operating Permit

Source Name:	Raybestos Products Company
Source Location:	1204 Darlington Avenue, Crawfordsville, IN 47933
County:	Montgomery
SIC Code:	3714
Operation Permit No.:	SPM 107-12810-00007
Permit Reviewer:	NH/EVP

On December 11, 2000, the Office of Air Quality (OAQ) had a notice published in the Journal Review, Crawfordsville, Indiana, stating that Raybestos Products Company had applied for a Significant Permit Modification to their existing Part 70 permit for the addition of an induction bonder to their existing bonding/flattening process. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

The Part 70 permit has been revised to reflect the name change of the Office of Air Management (OAM) to the Office of Air Quality (OAQ).

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Significant Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Raybestos Products Company
Source Location:	1204 Darlington Avenue, Crawsfordsville, IN 47933
County:	Montgomery
SIC Code:	3714
Operation Permit No.:	T107-6836-00007
Operation Permit Issuance Date:	April 14, 1999
Significant Permit Modification No.:	107-12810-00007
Permit Reviewer:	NH/EVP

The Office of Air Management (OAM) has reviewed a modification application from Raybestos Products Company relating to the operation of a stationary automotive parts manufacturing operation.

History

On October 9, 2000, Raybestos Products Company submitted an application to the OAM requesting a modification to their existing Title V which was issued on April 14, 1999. The modification includes the addition of one induction bonder to their existing bonding/flattening process (identified as P009). The addition of the new induction bonder increases the maximum capacity of the bonding/flattening process from 8,560 pounds bonded/flattened products per hour to 9,560 pounds bonded/flattened products per hour.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-7-5(16):

(a) One (1) electric induction bonding machine, identified as 13088, exhausting to one (1) stack (13318).

Existing Approvals

The source was issued a Part 70 Operating Permit T107-6836-00007 on April 14, 1999. The source has since received the following:

(a) First Administrative Amendment No.: 107-11435-00007, issued on December 7, 1999.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
13318	13088 (new) and 13073 (existing) Induction Bonders and associated exhaust hoods	26	1.5	3500	Ambient

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 9, 2000.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document (page 1).

Potential To Emit Before Controls (Modification)

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)
PM	4.63
PM-10	4.63
SO_2	0.00
VOC	0.00
CO	0.00
NO_x	0.00

Justification for Modification

The Title V permit is being modified through a Significant Permit Modification. This modification is being performed pursuant to 326 IAC 2-7-12(d)(1) which states the following:

"Significant modification procedures shall be used for application requesting Part 70 permit modifications that do not qualify as minor permit modifications or as administrative amendments. Every significant change in existing monitoring Part 70 permit terms or conditions and every relaxation of reporting or record keeping permit terms or conditions shall be considered significant".

Addition of the proposed equipment under this approval shall increase the maximum throughput for the bonding/flattening process, identified as P009, at the existing source from 8,560 pounds per hour to 9,560 pounds per hour and increase the allowable PM emissions (existing Part 70 permit condition D.1.1(e) from 10.86 pounds PM per hour to 11.70 pounds PM per hour. Therefore, the application was reviewed as a Significant Permit Modification.

County Attainment Status

The source is located in Montgomery County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Montgomery County has been designated as attainment or unclassifiable for ozone.

Potential to Emit After Controls for the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Induction bonder	4.63	4.63	0.00	0.00	0.00	0.00	0.00
Total Emissions	4.63	4.63	0.00	0.00	0.00	0.00	0.00

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Montgomery County, which is not one of the listed counties for this rule. Additionally, the source does not have the potential to emit CO, VOC, NO_x, PM-10, or SO_2 at greater than a 100 ton per year rate. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

The addition of the new induction bonder increases the maximum capacity of the bonding/flattening process from 8,560 pounds bonded/flattened products per hour to 9,560 pounds bonded/flattened products per hour. Thus, the following 326 IAC 6-3-2 (Process Operations) limitation is for the entire bonding/flattening process.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the bonding/flattening processes shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

$E = 4.10\ (9560/2000)^{0.67} = 11.70$ lbs PM/hr

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no compliance monitoring requirements applicable to the induction bonder.

Changes Proposed

The new induction bonder is being added to Section A.2(7) as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

(7) One (1) bonding/flattening process, installed in 1984, identified as P009, with a maximum capacity of ~~8~~**9**,560 pounds bounded/flattened products per hour, consisting of the following equipment:

(A) One (1) electric induction bonding machine, identified as 13088, exhausting to one (1) stack (13318);

(~~A~~**B**) Two (2) bonders, exhausting to one (1) stack (13072);

(~~B~~**C**) Two (2) bonders, exhausting to one (1) stack (13073);

(~~C~~**D**) One (1) bonder, exhausting to one (1) stack (13075);

(~~D~~**E**) One (1) bonder, exhausting to one (1) stack (13076); and

(~~E~~**F**) One (1) induction bonder, identified as P015, using one (1) baghouse as control, exhausting to one (1) stack (13203).

The new induction bonder is being added to the facility description in Section D.1(7) as follows:

Facility Description [326 IAC 2-7-5(15)]
(7) One (1) bonding/flattening process, installed in 1984, identified as P009, with a maximum capacity of ~~8~~**9**,560 pounds bonded/flattened products per hour, consisting of the following equipment:
(A) One (1) electric induction bonding machine, identified as 13088, exhausting to one (1) stack (13318);
(~~A~~**B**) Two (2) bonders, exhausting to one (1) stack (13072);
(~~B~~**C**) Two (2) bonders, exhausting to one (1) stack (13073);
(~~C~~**D**) One (1) bonder, exhausting to one (1) stack (13075);
(~~D~~**E**) One (1) bonder, exhausting to one (1) stack (13076); and
(~~E~~**F**) One (1) induction bonder, identified as P015, using one (1) baghouse as control, exhausting to one (1) stack (13203).

The PM allowable emission limit under Section D.1.1(e) for the bonding/flattening process is being revised due to the increase in capacity caused by the addition of the new induction bonder.

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]

(e) The PM from the bonding/flattening process shall not exceed ~~10.86~~ **11.70** pounds per hour;

Conclusion

The operation of this stationary automotive parts manufacturing operation shall be subject to the

conditions of the attached proposed **Significant Permit Modification No. 107-12810-00007**.

Appendix A: Emissions Calculations

Company Name: Raybestos Products Company
Address City IN Zip: 1204 Darlington Avenue, Crawfordsville, IN 47933
Significant Permit Modification: 107-12810
Plt ID: 107-00007
Reviewer: NH/EVP

Calculations are based on a mass balance study of the bonding operation

Test Results from 05 Bonder

	Before Bonding (grams)	After Bonding (grams)	Lost PM (grams)	Lost PM (lb/hr)
Stack 1	5770	5764.1	5.9	0.485
Stack 2	5824.5	5819.7	4.8	0.56
Total	11594.5	11583.8	10.7	1.045

Maximum of 5.9 grams per 75 assemblies

Measurement paramters for Bonder			
2 Stacks of 75 assemblies/stack			
Maximum Lost per assembly	=	0.08	g/assembly
Average Lost per assembly	=	0.06	g/assembly

Emissions are primarily Phenolic resins (polymers) with no significant content of VOC or HAPs.

Maximum Potential to Emit

New Machine	Emission Rate g/assy	Production Rate assy/min	Potential Uncontrolled Emissions gr/hour	lb/hour	Avg lb/day (24 hour)	Max lb/yr (8760 hrs)	Tons per year
Double Head - 05 Area Bonder	0.08	100	480.00	1.06	25.40	9269.84	**4.63**